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AUTHOR Christmas, Oren L.
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ABSTRACT

A study was conducted to investigate the factors related to freshman student enrollment in the College of Agriculture and Home Economics at New Mexico State University. A Likert-type survey instrument was developed and administered to a random sample of 106 freshman students enrolled in the college during the 1989 spring semester, excluding those enrolled in home economics. Usable responses were received from 83 (78 percent) of the students surveyed. Factors that students considered influential in their decision to enroll in the college included their agricultural experiences, the perceived opportunities in agriculture, their interest in agriculture, involvement in the secondary agricultural education program, and a feeling of usefulness. Parents were the most influential persons in the students' choice of course of study. Other influential factors included students' secondary program and participation in 4-H clubs. Based on the study, recommendations were made that the college's recruitment efforts should focus on (1) the opportunities available in the field of agriculture; (2) the personal feeling of usefulness or accomplishment possible through employment in the agricultural industry; (3) providing agriculturally related experiences for students; and (4) the parents/guardians of students as influences. (KC)

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Why Enroll?
Student Enrollment Strategy in the College of Agriculture and Home Economics

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by

Oren L. Christmas
Assistant Professor
Department of Agricultural Education
The Ohio State University

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Related Literature/Problem Statement

Many colleges of agriculture have had a decrease in their enrollment over the past several years. In an effort to improve this situation, colleges and universities are placing added emphasis and monies toward the recruitment of students into their institutions. In order to maximally utilize these resources, one of the questions for the respective institutions to consider is why students enroll in their college.

Bentley and Hemp (1958) found that students' general agricultural interests and perceived opportunities in agriculture were reasons for selecting agriculture as a career. Publications, people outside the school, and the secondary vocational agriculture program were all factors that Freeh (1963) found to influence students to enroll in agricultural colleges. In a recent, more specific investigation, Hillison, et. al. (1987) found that students were influenced to major in agricultural education by their agricultural teacher, peers and parents, and in perceived job opportunities. Boone, et. al. (1988) in a study of high-ability, non-traditional student recruitment found that personal contact with college personnel, family, high school guidance counselors, and visiting the campus were all influential recruitment activities.

The College of Agriculture and Home Economics at New Mexico State University has experienced a 25 percent decrease in enrollment (excluding Home

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Economics) from 1984 to 1988 (L.W. Robbins, personal correspondence, November, 1988). In order to plan an effective recruitment program, information pertaining to the students' enrollment strategy is a primary starting point.

Purpose and Objectives

The purpose of this descriptive study was to investigate the factors related to freshman student enrollment in the College of Agriculture and Home Economics at New Mexico State University. The objectives were to:

1) develop a reliable and valid instrument to measure the reasons students enroll in the agricultural college

2) describe the factors that influence student enrollment strategy

3) establish whether the student's agricultural background influenced their enrollment strategy.

Procedures

The population for this study was all full time freshman students enrolled in the College of Agriculture and Home Economics during the 1989 spring semester (N=145), excluding those enrolled in the Home Economics Department. Home Economics students were excluded because the literature indicated unique motivating factors that were not common to agricultural majors. Due to available resources, a random sample of 106 students were selected to receive the survey instrument. Examination of those subjects selected indicated that all agricultural majors were represented.

Statements included in the questionnaire were derived from previous research, personal experiences of non-freshman students and faculty. The researcher developed questionnaire was evaluated by a college review committee to establish content validity and pilot tested with a group of students not included in the sample. The questionnaire was a Likert-type summated scale

(Cronbach's Alpha Coefficient reliabilities reported in brackets) and was composed of 108 statements comprising 12 areas representing:

1) family related factors [α=.71], 2) secondary agricultural education [α=.95],
3) Cooperative Extension Service [α=.91], 4) significant others [α=.85],
5) exposure to the university [α=.76], 6) agricultural experience [α=.72],
7) agricultural opportunities [α=.81], 8) general agricultural interests [α=.80],
9) financial concerns [α=.58], 10) personal preference [α=.73],
11) media [α=.74] and 12) feeling of usefulness [α=.82].

The overall instrument reliability was calculated as .95.

The instruments were coded and distributed to the academic departments for distribution to the students during the preregistration period. A follow-up questionnaire was sent to non-respondents three weeks from the receipt of the first completed questionnaire. A random sample of non-respondents were personally requested to respond to the questionnaire. Comparison of respondents by response category indicated no significant differences between early, late and non-respondents. All available data were then pooled for further analysis.

Results and Conclusions

There were eighty three (78%) useable questionnaires received and analyzed. The results will be reported in two formats. The response categories of strongly, somewhat and slightly influential were collapsed for reporting purposes. The first part of the discussion will pertain to the summated scale items that comprise the domain. A panel of experts established that summated scores above the domain's midpoint value should be viewed as influencing student enrollment strategy. Following this will be a brief discussion pertaining to the individual statements comprising each domain. Although reliability was not established for each statement, this researcher contends that the information

contained in the tables could be very useful to the reader.

Of the twelve domains investigated, five had mean scores above each respective domain's midpoint value. The students' agricultural experiences, the perceived opportunities in agriculture, their interest in agriculture, involvement in the secondary agricultural education program and a feeling of usefulness were all factors that were influential in their enrolling in the College of Agriculture and Home Economics.

The first area (domain) of interest pertained to factors related to the influence of relatives and family tradition on the respondents enrolling in the College of Agriculture and Home Economics (enrollment strategy). A mean score of 11.9 was well below the midpoint value of 20, indicating little influence on student enrollment strategy. Displayed in Table 1 are the family factors. The father/step-father/male guardian (76%), mother/step-mother/female guardian (70%) and grandparents (45%) were indicated by the students as influencing them the most to enroll in the agricultural college.

Table 1

Family Factors	Number Influential	%	Number Not Influential	%
Father/Step-Father/Male Guardian	63	75.9	20	24.1
Mother/Step-Mother/Female Guardian	58	69.9	25	30.1
Grandparents	37	45.0	46	55.0
Family tradition	24	28.9	59	71.0
Parent(s)/relative(s) are alumni of NMSU	22	26.5	61	73.5
Brother/Step-Brother	20	24.1	63	75.9
Sister/Step-Sister	20	24.1	63	75.9
Other Relative (Specify) _____	19	22.9	64	77.1
Parent(s) employed by NMSU	2	2.4	81	97.6
Relative(s) employed by NMSU	5	6.0	78	94.0

Mean Score = 11.9 Standard Deviation = 6.4 Midpoint Score = 20

The influence of the secondary agricultural education program was slightly above the mid point value of 10 ($\overline{X}$=10.7), indicating that participation in this program was influential in their enrollment strategy. Factors that were associated with the secondary agricultural education program are presented in Table 2. Over fifty five percent of the respondents indicated that the factors listed influenced them to enroll in the agricultural college.

Table 2

Secondary Agricultural Education Program	Number Influential	%	Number Not Influential	%
Taking high school vo-ag. classes	54	65.1	29	34.9
My high school vocational agriculture teacher	52	62.7	31	37.3
My FFA experience	51	61.4	33	38.6
High school FFA judging experience	50	60.2	33	39.8
Grades obtained in high school agriculture	46	55.4	37	44.6

Mean Score = 10.7 Standard Deviation = 7.7 Midpoint Score = 10

The influence of the Cooperative Extension Service ($\overline{X}$=6.3) was well below the midpoint value of 12. None of the factors comprising this domain (Table 3) influenced more than twenty-five percent of the students.

Table 3

Cooperative Extension Service	Number Influential	%	Number Not Influential	%
My 4-H club experience	25	30.1	58	69.9
High school 4-H judging team experience	25	30.1	58	69.9
My county 4-H extension agent	24	29.0	59	71.1
My county extension agent	23	27.7	60	72.3
Local 4-H club leader	23	27.7	60	72.3
My county home economics agent	11	13.3	72	86.7

Mean Score = 6.3 Standard Deviation = 6.7 Midpoint Score = 12

The respondents indicated, as represented by their mean score of 26.4, that contact with significant others was not an enrollment influence (midpoint=36). Individuals who were associated with agriculture and high school friends were influential to over fifty percent of the students responding (Table 4).

Table 4

Significant Others	Number Influential	%	Number Not Influential	%
Friends in agriculture	73	88.0	10	12.0
Farmers/ranchers in my community	63	76.0	20	24.1
Acquaintance with agricultural leaders	56	67.5	27	32.5
Members of my chosen (same) profession	53	63.9	30	36.1
Attend college with my friends	44	53.0	39	47.0
Peers in high school	42	50.6	41	49.4
High school friend	41	49.4	42	50.6
An upper classman attending NMSU	37	44.6	46	55.4
Agribusinessmen in my community	36	43.4	47	56.6
Friends enrolled in my major	33	39.8	50	60.2
Other high school teacher	31	37.3	52	62.7
My high school counselor	31	37.3	52	62.7
A fellow college classmate	29	35.0	54	65.1
Community/Junior College ag. instructor	15	18.1	68	81.9
My Community/Junior College Counselor	8	9.6	75	90.4
My local school superintendent	8	9.6	75	90.4
A community/Junior College instructor (Other than agricultural instructor)	7	8.4	76	91.6
My high school principal	7	8.4	76	91.6

Mean Score = 26.4 Standard Deviation = 11.7 Midpoint Score = 36

The domain constituting exposure to the university was below the midpoint value of 26 ($\bar{X}$=22.1) and indicates little influence on the respondents enrollment strategy. Within the domain over ninety percent of the students indicated that the reputation of the college influenced them to enroll, eighty-eight percent indicated

the variety of course offerings were influential and sixty-six percent indicated that New Mexico State University was the only institution in the state of New Mexico that offered their area of interest.

Table 5

Exposure to New Mexico State University	Number Influential	%	Number Not Influential	%
Reputation of NMSU College of Agriculture	77	92.8	6	7.2
College of Agriculture curriculum has variety	73	88.0	10	12.0
NMSU only inst. in New Mexico with my area of interest	55	66.3	28	33.7
NMSU catalogs	45	54.2	38	45.8
NMSU College of Ag. brochure/literature	41	49.4	42	50.6
A visit to NMSU campus for an FFA activity	40	48.2	43	51.8
Personal correspondence from NMSU	36	43.4	47	56.6
NMSU college counselor	33	39.8	50	60.2
NMSU agriculture faculty member	31	37.3	52	62.7
Visit to campus for an activity other than 4-H or FFA	28	33.7	55	66.3
NMSU College of Agriculture recruiter	26	31.3	57	68.7
A visit to NMSU campus for a 4-H activity	22	26.5	61	73.5
NMSU Recruiter (other than ag. recruiter)	18	21.7	65	78.3

Mean Score = 22.1 Standard Deviation = 8.7 Midpoint Score = 26

When considering their agricultural experiences, the students had a mean score of 17.2 which was slightly above the midpoint value of 16 and indicates that this experience was influential in their enrollment strategy. At least fifty percent of the students indicated that hands-on agricultural experiences such as hobbies, personal experiences, and employment opportunities were influential in their decision to enroll in the College of Agriculture and Home Economics.

Table 6

Agricultural Experiences	Number Influential	%	Number Not Influential	%
Agriculturally related hobbies	74	89.2	9	10.8
Personal experience in farming/ranching	67	80.7	16	19.3
My farm/ranch background	60	72.3	23	27.7
My employment in ag. before entering college	51	61.4	32	38.6
Impressed by livestock and crops at fairs	45	54.2	38	45.8
Prizes I won at agricultural fairs	40	48.2	43	51.8
Tried other jobs, prefer my major area	36	43.4	47	56.6
Summer visits to relatives farm/ranch	33	39.8	50	60.2

Mean Score = 17.2 Standard Deviation = 6.7 Midpoint Score = 16

The respondents viewed the opportunities offered through agriculture as a strong influential force in their enrollment strategy as represented by their mean score of 21.3. This mean score was above the midpoint value of 18. Over sixty percent of the students indicated that eight of the nine agricultural opportunity factors were influential in their enrollment strategy.

Table 7

Agricultural Opportunities	Number Influential	%	Number Not Influential	%
Interest in the out-of-doors	80	96.4	3	3.6
Agriculture open doors to other jobs	71	85.5	12	14.5
Demand for people in agriculture	70	84.3	13	15.7
Geographical mobility of an ag. occupation	67	80.7	16	19.3
Ag. seemed to offer greater opportunities for employment	63	75.9	20	24.1
Social advantages of an ag. occupation	61	73.5	22	26.5
Economic advantages of an ag. occupation	52	62.7	31	37.3
Ag. seemed to offer greater opportunities for financial reward than other fields	52	62.7	31	37.3
The general acceptance of ag. as suitable for a minority (e.g., female, black, Hispanic)	26	31.3	57	68.7

Mean Score = 21.3 Standard Deviation = 6.6 Midpoint Score = 18

Another area that displayed a strong influential force in the students enrollment strategy was the category of general agricultural interest. With a midpoint of 22, the students' scores were considerably higher as reflected by their mean score of 33.3. The students' general agricultural interests were most pronounced when considering the prestige of being in agriculture, wanted to be involved in agriculture, and a chance for them to be on their own and to be their own boss were major influencers.

Table 8

General Agricultural Interest	Number Influential	%	Number Not Influential	%
The prestige of being in agriculture	64	77.1	19	22.9
Never had a desire to do anything else	54	65.1	29	34.9
A chance to be on my own	52	62.7	31	37.3
Desire to become my own boss	70	84.3	13	15.7
Belief that I would receive personal attention	42	50.6	41	49.4
Student Organization/Club in College of Ag.	38	45.8	45	54.2
Perceived agricultural classwork to be easy	34	41.0	49	59.0
Non-farm/Non-ranch work experience	33	39.8	50	60.2
A desire to be seen by members of the opposite sex as a good prospect for marriage	30	36.1	53	63.9
To help my own ethnic/socioeconomic group	30	36.1	53	63.9
A chance to party	29	34.9	54	65.1
A way of getting away from home	26	31.3	57	68.7
Lack of interest in previous major	21	25.3	62	74.7
Wanted to experience life in the "Big City"	12	14.5	71	85.5

Mean Score = 22.8 Standard Deviation = 8.1 Midpoint Score = 28

The area of financial concerns (Table 9) had a mean score of 6.4 was below the midpoint value of 8 and indicates that scholarships and other monetary concerns were not influential in their enrollment strategy. At least fifty percent of the students indicated that the cost of attending NMSU and the location in relation

to their home were influential factors.

Table 9

Financial	Number Influential	%	Number Not Influential	%
NMSU was more economical to attend than other agricultural institutions	51	61.4	32	38.6
NMSU was close to my home	42	50.6	41	49.4
Received scholarship in College of Ag.	31	37.3	52	62.7
Received scholarship in my major area	29	34.9	54	65.1

Mean Score = 6.4 Standard Deviation = 4.2 Midpoint Score = 8

The mean score of the students personal preferences was 22.8 and well below the midpoint value of 28, indicating that their personal preferences had little influence on their enrollment strategy. When the scale is collapsed the vast majority of the students indicated that their personal preference for agriculture was influential in their enrollment strategy.

Table 10

Personal Preference	Number Influential	%	Number Not Influential	%
To learn about agriculture	80	96.4	3	3.6
I wanted a job in agriculture	81	97.6	2	2.4
Share agricultural interests with others	78	94.0	5	6.0
Seemed to drift naturally into ag. work	76	91.6	7	8.4
Desire to work with animals	76	91.6	7	8.4
Desire to specialize in agriculture	75	90.4	8	9.6
Desirability of rural residence	75	90.4	8	9.6
Desirability of a rural lifestyle	75	90.4	8	9.6
Interest in farm/ranch life	74	89.2	9	10.8
I wanted to work with farm/ranch crops	56	67.5	27	32.5
I wanted to work with farm/ranch machinery	47	56.6	36	43.4

Mean Score = 22.8 Standard Deviation = 8.1 Midpoint Score = 28

When considering the effect of media, respondents indicated by their mean score of 2.0 (midpoint=6) that this was not an influential factor. At least eighty-nine percent of the students indicated that television, radio and newspapers had very little influence on their enrollment strategy.

Table 11

Media	Number Influential	%	Number Not Influential	%
Television announcement	9	10.8	74	89.2
Newspaper article	8	9.6	75	90.4
Radio announcement	4	4.8	79	95.2

Mean Score = 2.0 Standard Deviation = 1.8 Midpoint Score = 6

The final area of interest pertained to the students' feeling of usefulness to themselves and to society. The students' mean score of 16.2 (Table 12) was above the midpoint value of 14 and indicated that this feeling was a influencing force in their enrollment strategy.

Table 12

Feeling of Usefulness	Number Influential	%	Number Not Influential	%
Desire to help others	73	88.0	10	12.0
Desire to help people learn to do things	63	75.9	20	24.1
I enjoy teaching others how to do agricultural things	62	74.7	21	25.3
Desire to work with young people	61	73.5	22	26.5
Desire to help the world be a better place	57	68.7	26	31.3
Desire to improve the quality of family living	53	63.9	30	36.1
Wanted to work with older people	35	42.2	48	57.8

Mean Score = 16.2 Standard Deviation = 6.1 Midpoint Score = 14

Of the twelve domains investigated, five had mean scores above each

respective domain's midpoint value. The students' agricultural experiences, the perceived opportunities in agriculture, their interest in agriculture, involvement in the secondary agricultural education program and a feeling of usefulness were all factors that were influential in their enrolling in the College of Agriculture and Home Economics.

In addition to the previous areas, the respondents were requested to indicate their agricultural background. Forty-nine (59%) indicated that they were from a farm or ranch background, and 17 (20%) indicated they were from an agricultural background other than a farm or ranch. Seventeen students (20%) indicated they did not have an agricultural background. Analyses of variance indicated that there were no significant differences in the agricultural background of the students and their response to the degree the domains influenced their enrollment strategy.

Implications

Based upon the analyses using the twelve domains of interest, the following recommendations are made. Recruitment efforts by New Mexico State University College of Agriculture and Home Economics should place emphasis on: 1) the opportunities available in the field of agriculture, 2) the personal feeling of usefulness or accomplishment possible through employment in the agricultural industry, 3) providing agriculturally related experiences for students, and 4) the parents/step-parents/guardians of the students. In addition, it is recommended that a continuous effort be made by all Colleges of Agriculture to improve this instrumentation and collect information on incoming freshmen pertaining to the factors that influenced them to enroll.

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